



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,274	01/04/2002	Jeffrey Allen Sturgill	UVD 0280 PA	6551

7590 02/17/2005

Killworth, Gottman, Hagan & Schaeff, L.L.P.
One Dayton Centre, Suite 500
Dayton, OH 45402-2023

EXAMINER

SHEEHAN, JOHN P

ART UNIT	PAPER NUMBER
----------	--------------

1742

DATE MAILED: 02/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/038,274

Applicant(s)

STURGILL ET AL.

Examiner

John P. Sheehan

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-48,123,124,126-128,130-133,135-148 and 151-154 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 152-154 is/are allowed.
- 6) ☒ Claim(s) 1,3-48,123,124,126-128,130-133,135-148 and 151 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3 to 12, 14, 15, 123, 124, 126, 130 to 133, 135 to 148 and 151 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted known prior art disclosed by the applicants in the specification at page 5, line 23 to page 7, line 6.

Applicants' admission includes teachings of cobalt complexes having the claimed valences and valence stabilizers (e.g. inorganic or organic stabilizers)(page 5, line 23 to page 7, line 6). Applicants' specification cites various references on pages 5 and 6 that teach the claimed conversion coating.

The following references describe conversion coating processes based on cobalt: PCT International Application Nos. WO 96/29,448, WO 98/51,841, WO 96/21,753, WO 93/05,198, and S. African Patent No. ZA 93/01,234 to Dolan; PCT International Application Nos. WO 96/05,335, WO 94/00,619, and European Patent Application Nos. EP 523,288, EP 458,020, EP 488,430, and U.S. Patent Nos. 5,873,953, 5,411,606, 5,378,293, 5,298,092, and 5,551,994 to Schriever. These specifications use additives that they term "bath stabilizers." These chemical species are claimed

A post-treatment rinse with a vanadate or tungstate solution is used in PCT International Application Nos. WO 96/29,448 and WO 98/51,841 to Dolan, as well as PCT International Application No. WO 96/05,335 and U.S. Patent No. 5,551,994 to Schriever. This rinse seals the coating deposited from the solution, as described in these specifications. Co⁺³-vanadate/tungstate complexes form during these sealing treatments. These complexes are slightly soluble and serve to enhance the corrosion resistance of the deposited coating. However, the sealing step used in this art is not an efficient method to treat the coating thickness or to incorporate sparingly soluble Co⁺³ compounds into the coating effectively. The effectiveness of the vanadate/tungstate sealing step is also reduced because the bath stabilizers carried over from the first solution increase the solubility of Co-vanadate/tungstate complexes. Furthermore, the toxicity of the conversion....

-6-

(emphasis added by the Examiner). As indicated by the emphasized language quoted above, the rinsing step of these references causes the formation of trivalent vanadate/tungstate complexes in the coating and that these complexes are only "slightly soluble and serve to enhance the corrosion resistance of the deposited coating".

Applicants' admissions include the limitations of claims 1, 3 to 12, 14, 15, 123, 124, 126, 130 to 133, 135 to 148 and 151. Applicants' admissions of the known prior art render the instant claims obvious, MPEP 2129.

With respect to the temperatures recited in claims 146 and 147, it is noted that these claims recite a temperature, but the temperature does not lend patentability to the claimed composition, since the composition is acknowledged in applicants' admission as known and the temperature is merely an arbitrary property that does that effect the claimed composition.

Regarding the specific solubility values recited, for example in claim 1 and the limitation, "sparingly soluble" recited in claims 148 and 151, it is the Examiner's position that, the admitted known prior art teaches that "Co⁺³-vanadate/tungstate complexes form during these sealing treatments" and that these "Co⁺³-vanadate/tungstate complexes" are encompassed by the applicants' claims (for example see claims 9 and 10). Thus, in view of the fact that the "Co⁺³-vanadate/tungstate complexes" taught by the prior art are encompassed by the instant claims, the prior art "Co⁺³-vanadate/tungstate complexes" would be expected to possess all the same properties as the trivalent Co complexes recited in the instant claims, including the solubility recited in the instant claims.

With respect to the properties recited in claims 3 to 7, 12 and 140 to 143, including solubility, the electrostatic barrier, the in exchange property, the thickness of the coating (i.e. the coating resulting from the contact with the substrate), the cavity containing cobalt and an additional ion are all inherent properties necessarily present from the presence of the same claimed chemicals, namely the trivalent cobalt complex that has been combined with a ligand (i.e. a valence stabilizer).

Response to Arguments

3. Applicant's arguments filed December 2, 2004 have been fully considered but they are not persuasive.

Applicants' arguments regarding "bath stabilizers" and that the admitted known prior art does not "teach or suggest the functionality of trivalent or tetravalent cobalt within a solid corrosion inhibiting conversion coating" and that the prior art

Art Unit: 1742

teaches that the trivalent cobalt is actually detrimental to the coating are not persuasive.

In the discussion of the known prior art applicants disclose that:

This rinse seals the coating deposited from the solution, as described in these specifications. Co⁺³-vanadate/tungstate complexes form during these sealing treatments. These complexes are slightly soluble and serve to enhance the corrosion resistance of the deposited coating. (the specification page 6, lines 19 to 22, emphasis added by the Examiner)

Contrary to applicants' arguments, this disclosure teaches that the trivalent cobalt complexes of these prior art products are within the solid corrosion-inhibiting conversion coating as recited in the instant claims and that rather than being detrimental to the coating, these trivalent cobalt complexes enhance the corrosion resistance of the coating.

Applicants' arguments regarding the solubility values recited in the claims are not persuasive. The admitted known prior art teaches that "Co⁺³-vanadate/tungstate complexes form during these sealing treatments" and that these "Co⁺³-vanadate/tungstate complexes" are encompassed by the applicants' claims (for example see claims 9 and 10). Thus, in view of the fact that the "Co⁺³-vanadate/tungstate complexes" taught by the prior art are encompassed by the instant claims, the prior art "Co⁺³-vanadate/tungstate complexes" would be expected to possess all the same properties as the trivalent Co complexes recited in the instant claims, including the solubility recited in the instant claims.

With respect to the properties recited in claims 3 to 7, 12 and 140 to 143, applicants state;

However, as explained above, the dependent claims
Further describe the physicochemical characteristics

Art Unit: 1742

...which are not inherent in the cited prior art.
(applicants' response, page 41, lines 2 to 5,
emphasis added by the Examiner)

In making this statement applicants have not specifically pointed out where they are referring when stating, "as explained above". In view of this, the Examiner has assumed that applicants are referring to page 36, the last paragraph of their response. However, applicants arguments presented starting on page 36 of their response are directed to the Schapira reference and are based on the premise that the trivalent cobalt taught by Schapira is present in the coating solution but not present in the actual finished coating. However, as set forth above, in view of the applicants' admission that;

This rinse seals the coating deposited from the solution, as described in these specifications. Co⁺³-vanadate/tungstate complexes form during these sealing treatments. These complexes are slightly soluble and serve to enhance the corrosion resistance of the deposited coating. (the specification page 6, lines 19 to 22, emphasis added by the Examiner)

the trivalent cobalt complexes of the admitted known prior art applied in this rejection of the claims are actually in the final coating as recited in the applicants' claims.

Accordingly, applicants' arguments based on the premise that the trivalent cobalt is present in the coating solution but not present in the actual finished coating are not persuasive regarding the remaining prior art rejection based on the admitted known prior art.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent

Art Unit: 1742

and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1, 3 to 48, 123, 124, 126 to 128, 130 to 133, 135 to 148 and 151 to 154 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 to 53 of copending Application No. 10/038,150. Although the conflicting claims are not identical, they are not patentably distinct from each other because the corrosion inhibiting seal of the '150 application is substantially identical in composition to the corrosion inhibiting conversion coating of the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

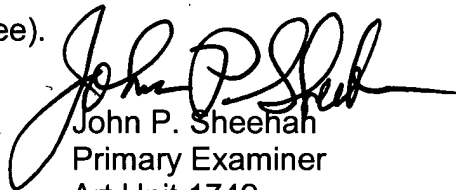
Art Unit: 1742

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (6:45-4:30) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John P. Sheehan
Primary Examiner
Art Unit 1742

jps